NWS Form E-5 U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE **MONTHLY REPORT OF HYDROLOGIC CONDITIONS**	**HYDROLOGIC SERVICE AREA:** Pocatello, Idaho **REPORT FOR:** **MONTH:** September **YEAR:** 2012
TO: Hydrologic Operations Division, W/OH2 National Weather Service National Oceanic and Atmospheric Administration Silver Spring, Maryland 20910	**SIGNATURE** Corey Loveland Service Hydrologist **DATE:** October 9, 2012
When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts and hydrologic products issued (NWS Instruction 10-924).	

X **An X in this box indicates that no flooding has occurred for the month within this hydrologic service area.**

Overview

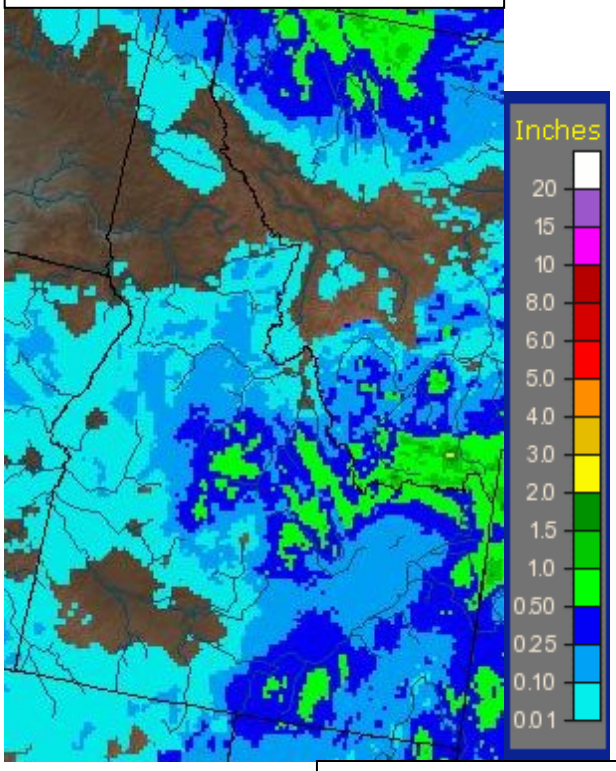
September continued the trend of being warmer and drier than normal with continued dry soil and vegetative conditions throughout the Hydrologic Service Area. The highest rainfall totals ranged from about 0.50 to 1.5 inches near the continental divide, central mountains, Bear Lake and the mountains near Oakley. For Climatic Division 10 (southeastern Idaho) the total areal precipitation was 0.43" for September which ties last year's September total, although in 2010 the total was less, being at 0.35". In the year of 1999, it was an analog dry month (September) as well at 0.48" of total precipitation. Of the data available for the month, the highest 24-hour rainfall total was 0.65 inch on the 1st day of the month in Oakley (but received a total of 0.65 inches in the month).

Again this past month, reservoir storage levels dropped (not as much as the changes in the month of August, but still significant). Lake Walcott fell the most by dropping 47% of capacity. During September, approximately 300,000 acre-feet of combined storage in the upper Snake River basin was lost. Overall, the upper Snake River basin has also decreased 7% in reservoir storage capacity (32% to 25%) through the past month. Therefore, reservoir storage across the HSA continues to fall as the summer ends and operator gear up for winter storage. Monthly average streamflow has also continued to decrease significantly; as would be expected during late summer. USGS has added record low flow graphics to their webpage-see below.

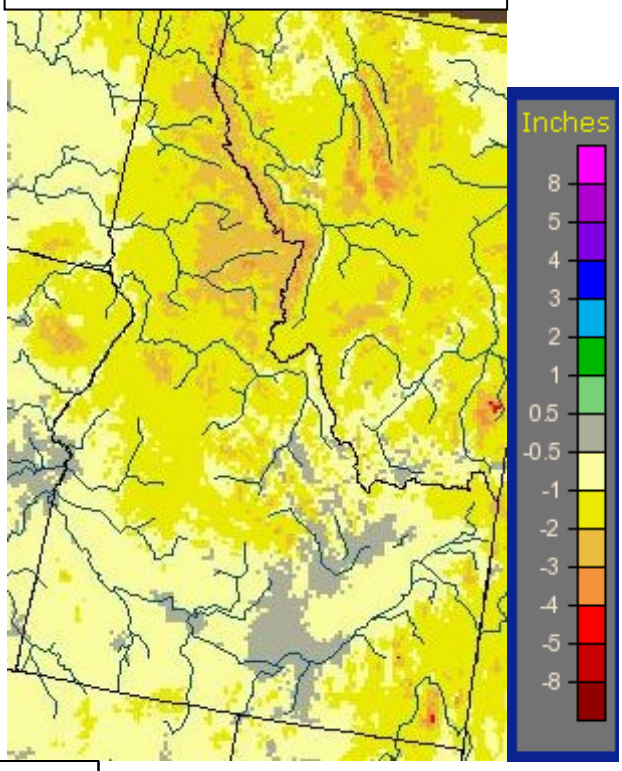
Drought conditions and fires continue to be the issues here in the HSA. Although the temperatures have decreased significantly since the August highs-of-the year, the one-month outlook shows a continuation of the about 40 percent chance of above normal temperatures. The precipitation outlook continues to indicate an equal chance of normal conditions. With the decreased temperatures and some rainfall, we have finally seen relief for the fires. In fact, the past couple of days, the Forest Service has inquired about favorable weather conditions to initiate prescribed burning in some areas in eastern Idaho. The current Fire Potential Outlook shows the reduced conditions for fire hazard as well and the current U.S. Drought Monitor has essentially kept the drought conditions (percent areas) the same as they were last month. The state (IDWR and Governor) have not announced any additional emergency drought declarations this past month, (also see note below). Currently, there are two fires burning within the HSA, the Mustang Complex (considered a major fire) and the Rocky Canyon fire, please see details below.

Precipitation:

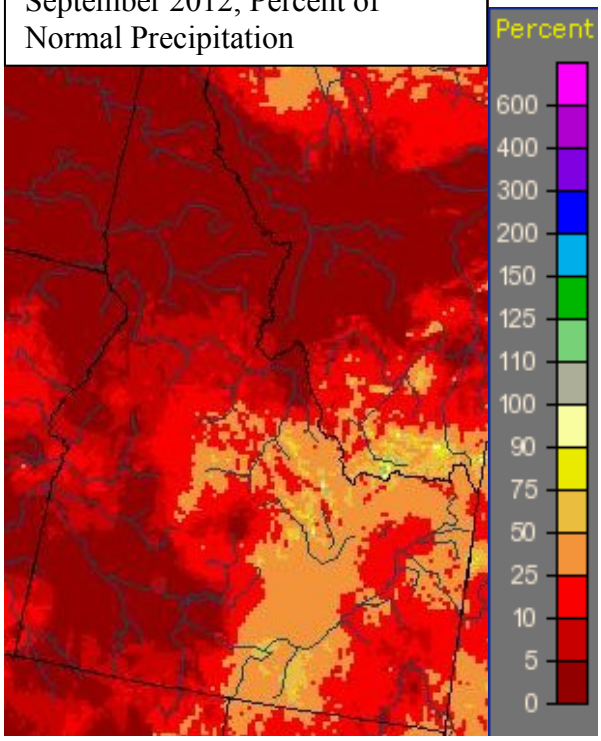
September 2012, Observed Precipitation



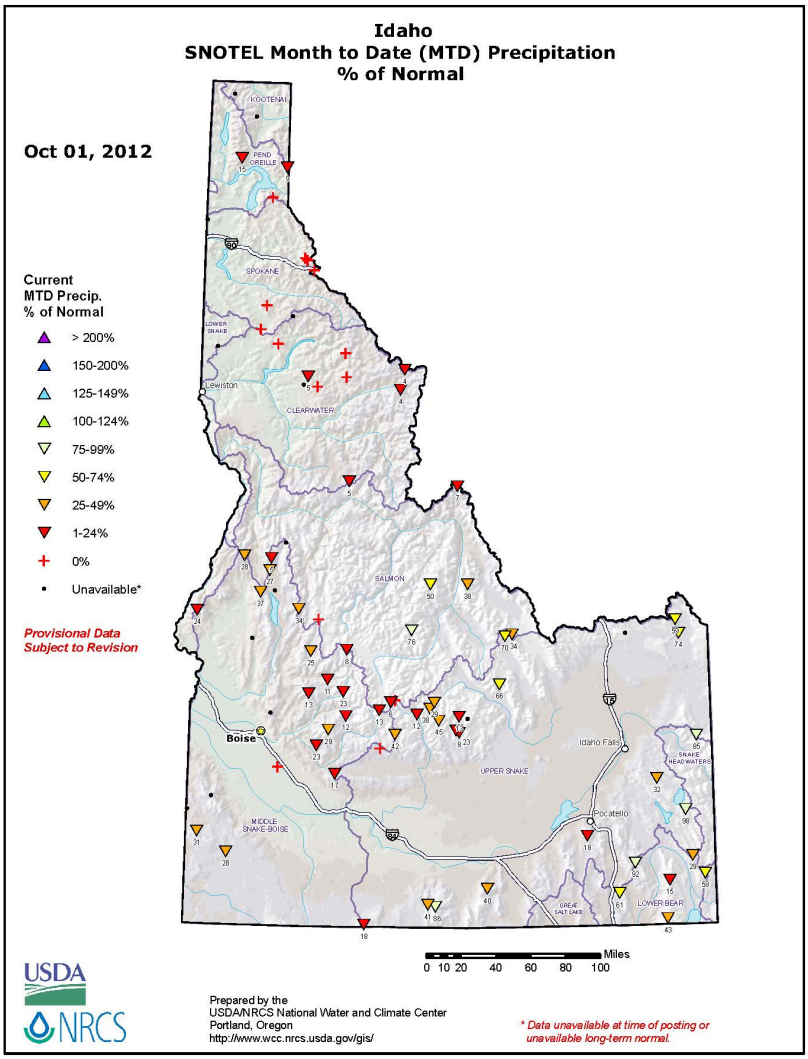
September 2012, Departure from Normal Precipitation



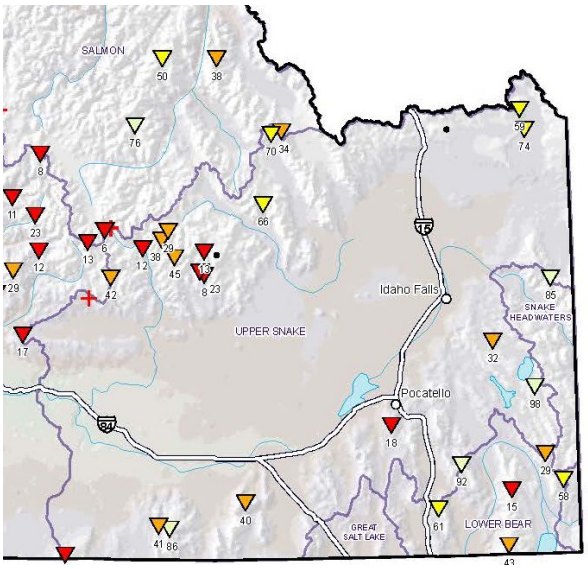
September 2012, Percent of Normal Precipitation



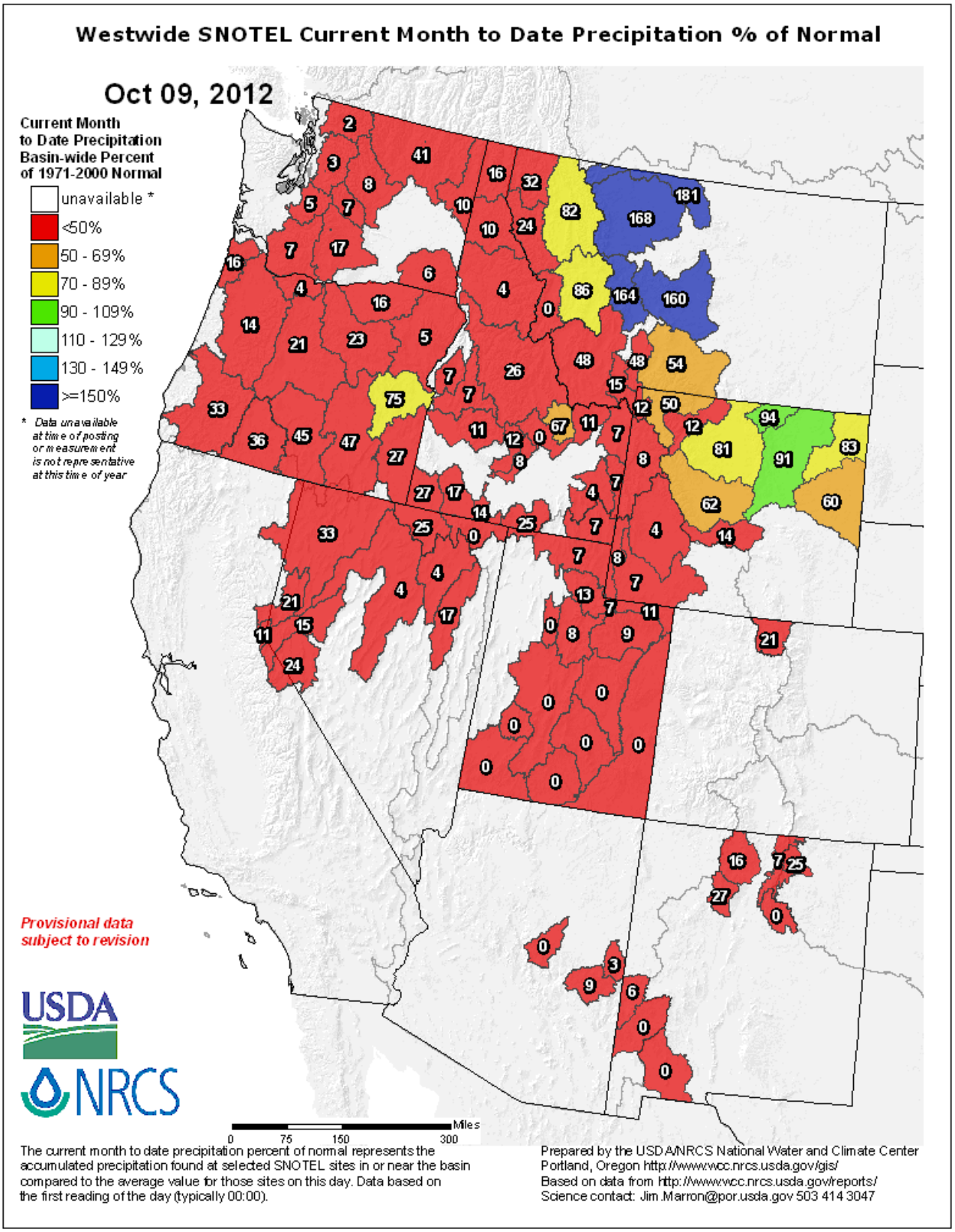
http://water.weather.gov/precip/index.php



SNOTEL MTD % of Normal Precipitation for end of September 2012
(image below is cropped from left image)



ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/1stmonth/id/prec/id_mtdprecpctnormal_Oct.pdf



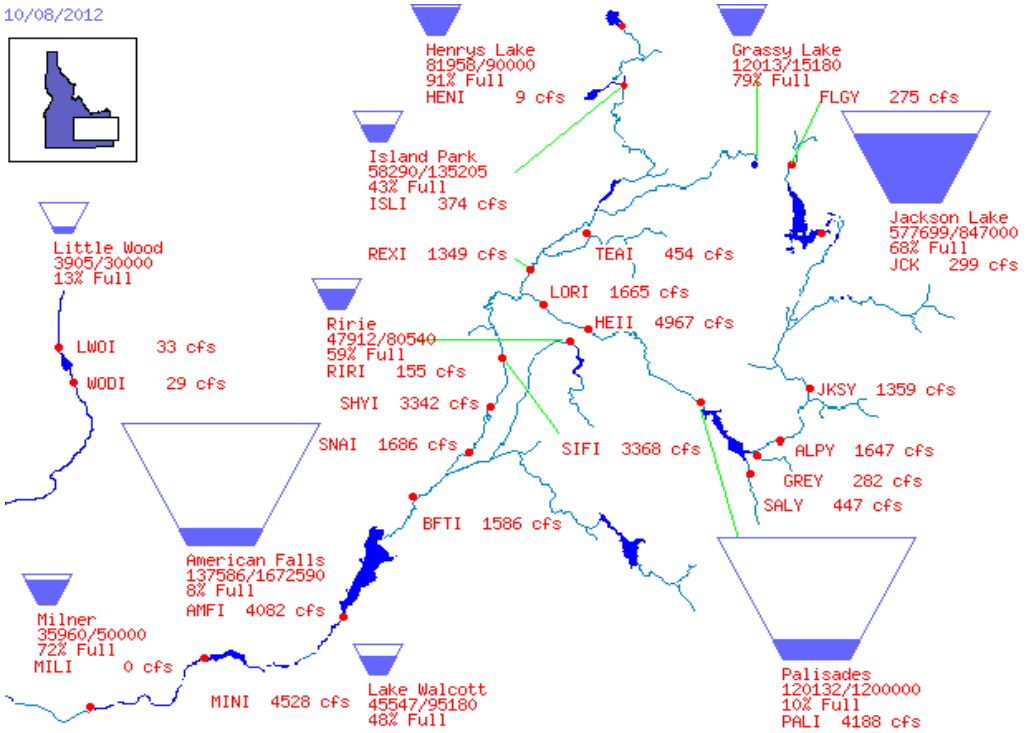
http://www.wcc.nrcs.usda.gov/gis/images/west_mtdprecpctnormal_update.png

Reservoirs:

Reservoir	% Capacity Aug 31[1]	% Capacity Sep 30[2]	Percent Change	% of Average[2]	% of Last Year[2]
Henry's Lake	91	91	0	108	97
Island Park	44	43	-1	84	50
Palisades	38	25	-13	37	28
Ririe	80	63	-17	116	84
Blackfoot	63	NR		NR	NR
American Falls	14	9	-5	27	19
Bear Lake	66	62	-4	93	76
Magic	47	28	-19	89	56
Little Wood	22	13	-9	61	32
Mackay	48	36	-12	206	53
Oakley	24	18	-6	66	49
Lake Walcott	95[3]	48[4]	-47	n/a	n/a
Milner	72[3]	72[4]	0	n/a	n/a

Source: (1) NRCS August 31, 2012; (2) NRCS September 30, 2012.
(3) US Bureau of Reclamation (BOR) September 10, 2012 (4) BOR October 8, 2012

http://www.wcc.nrcs.usda.gov/ftpref/data/water/basin_reports/idaho/wy2012/bareid9.txt

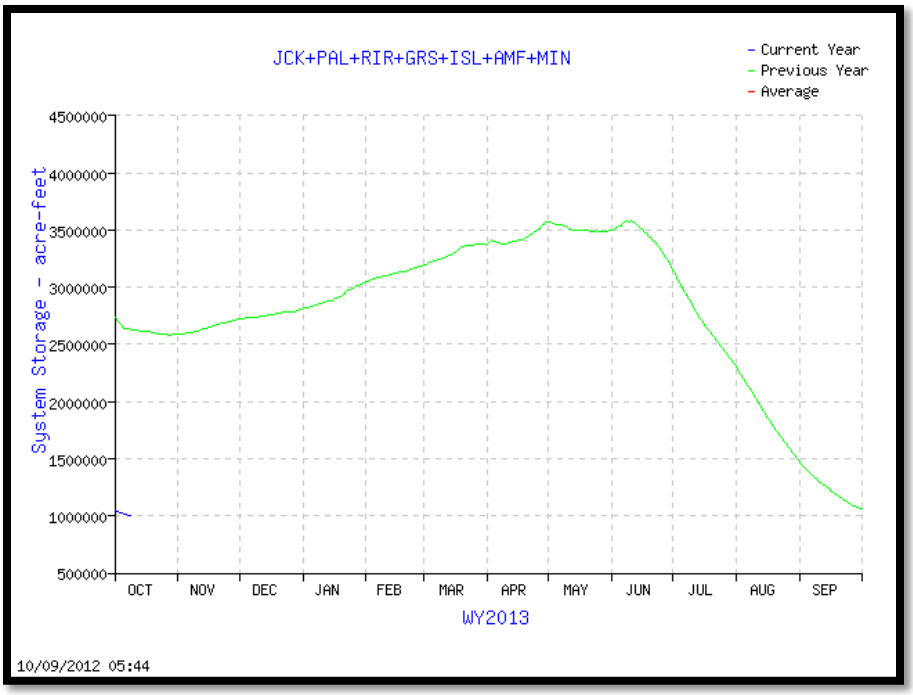


25% of Capacity in Upper Snake River System
(Jackson Lake, Palisades, Grassy Lake, Island Park, Ririe, American Falls & Lake Walcott)

Upper Snake River:
Total Space Available: 3,046,512 AF
Total Storage Capacity: 4,045,695 AF

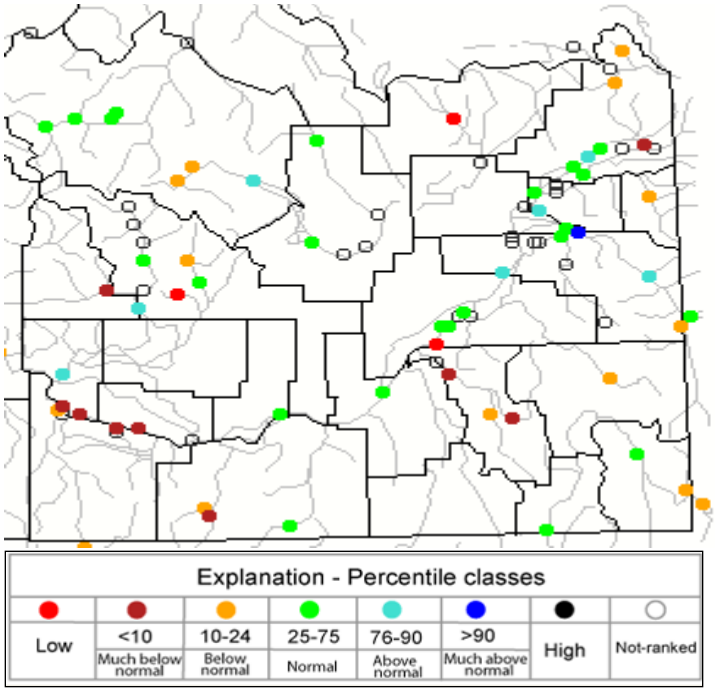
http://www.usbr.gov/pn/hydromet/burtea.cfm

Graph of Upper Snake River Current Total System Reservoir Storage



http://www.usbr.gov/pn-bin/graphwy2.pl?snasys_af

Streamflow:



Monthly average streamflow compared to historical average streamflow for September 2012.

USGS

http://waterwatch.usgs.gov/?m=mv01d&r=id&w=map

Monthly Below Normal Streamflow:

USGS science for a changing world

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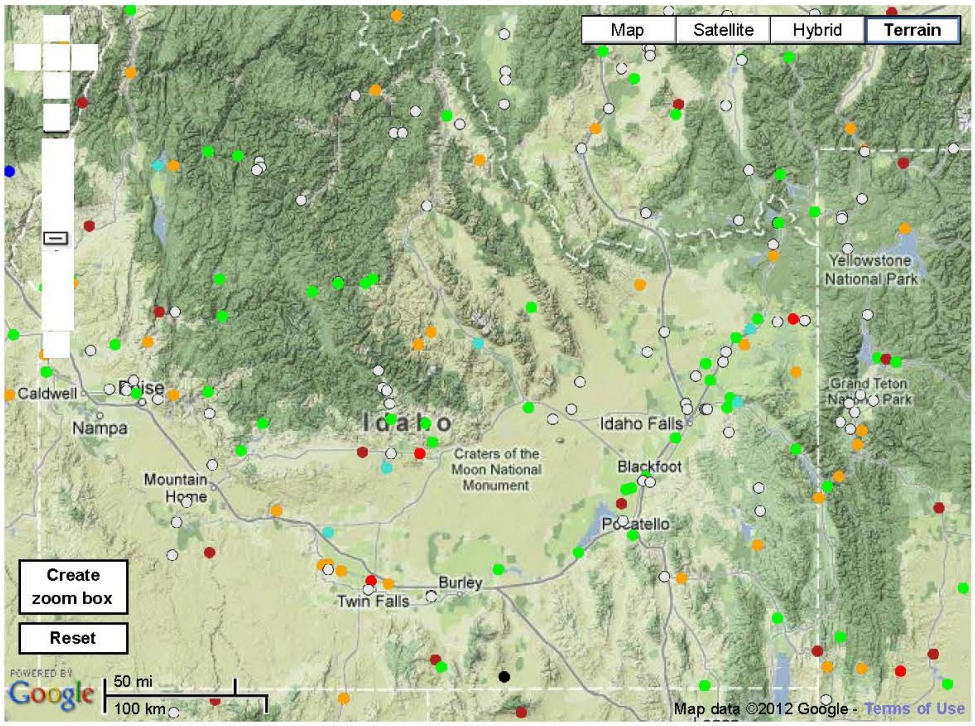
Map | HUC Map | Google Map

Map of real-time streamflow compared to historical streamflow for the day of the year (Idaho)

Idaho or Water-Resources Regions



Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

References to non-U.S. Department of the Interior (DOI) products do not constitute an endorsement by the DOI. By viewing the Google Maps API on this web site the user agrees to these TERMS of Service set forth by Google.

http://waterwatch.usgs.gov/index.php?id=mv01d_dry&sid=w__gmap|m__mvd_dry&r=id

Past Few Months Streamflow Comparisons (Aug to Sept and July to Sept):

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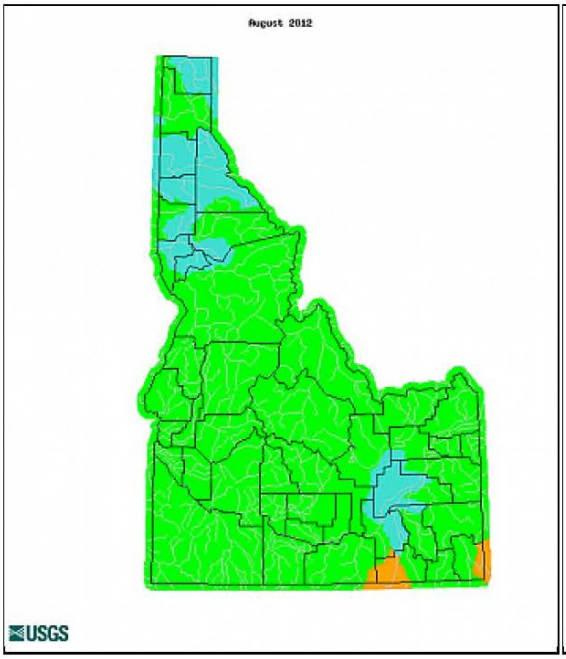
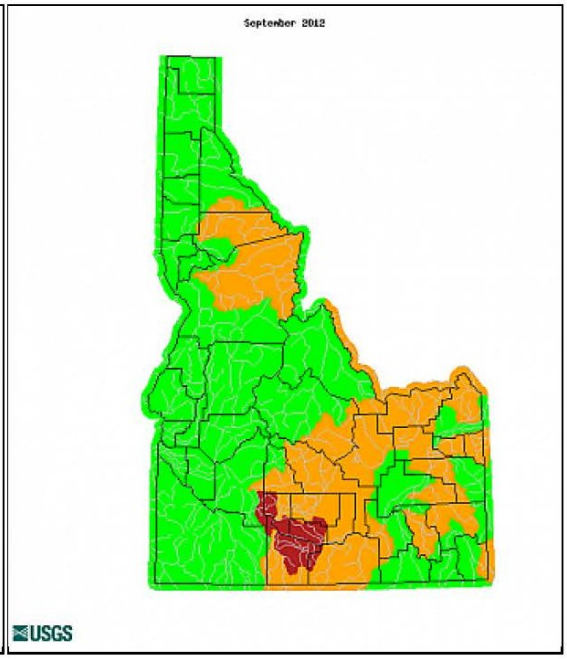
Comparison of Monthly Streamflow Maps

Geographic Area: Idaho | Water Resource Region: | Map Type: HUC GO

Date (YYYYMM): 201208



Date (YYYYMM): 201209



Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

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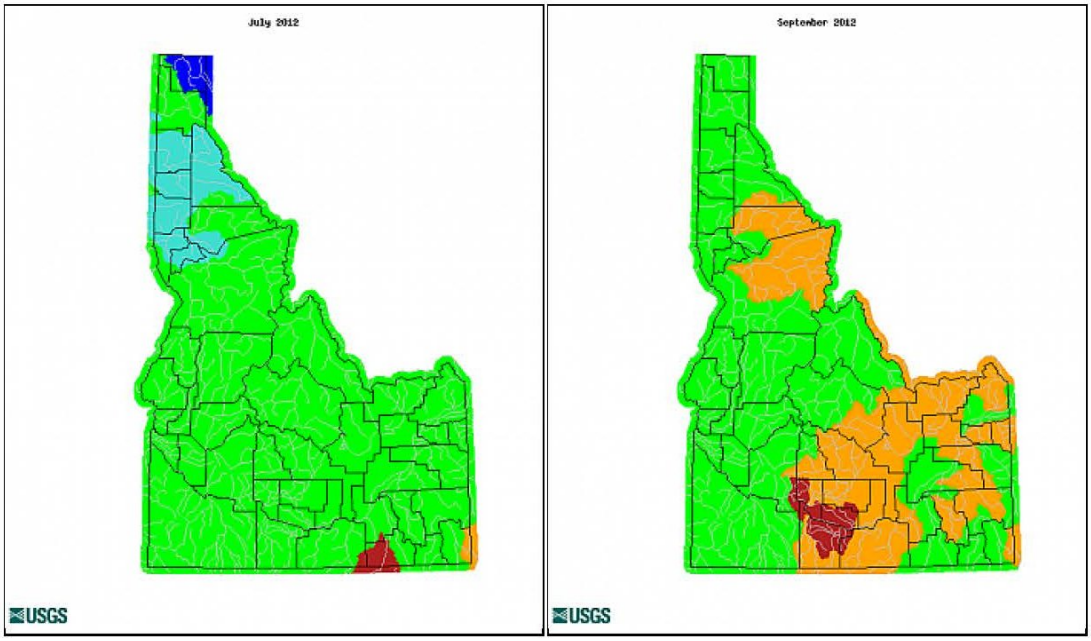
Comparison of Monthly Streamflow Maps

Geographic Area: Idaho | Water Resource Region: | Map Type: HUC | Go

Date (YYYYMM): 201207

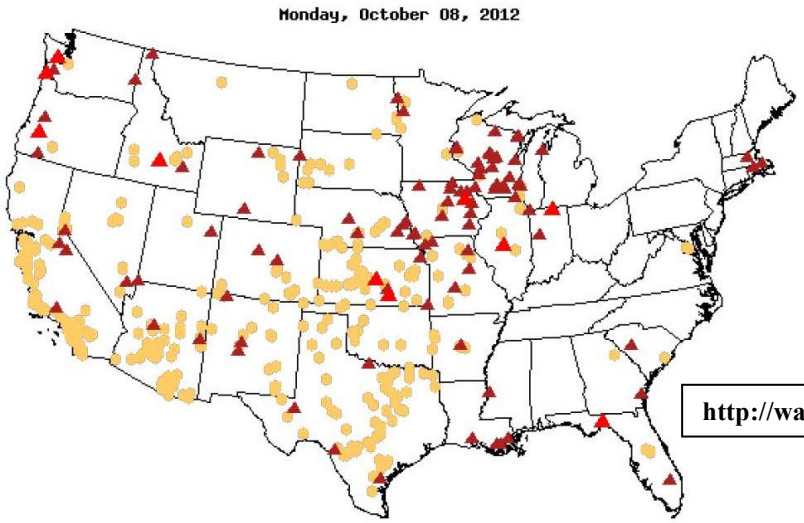
Date (YYYYMM): 201209



Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

http://waterwatch.usgs.gov/index.php

Map of Record Low 7-day Streamflow



http://waterwatch.usgs.gov/index.php?id=wwdrought_us

Explanation

- Record low flow with more than 30 years data
- Record low flow with less than 30 years data
- Zero flow sites

Drought Information:

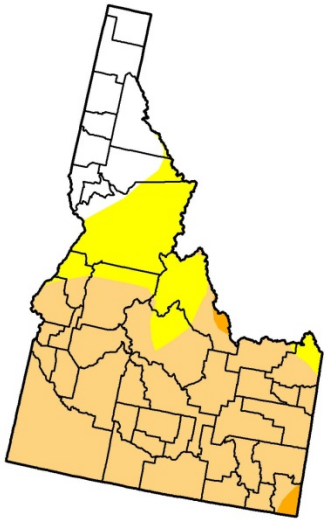
U.S. Drought Monitor

October 2, 2012
Valid 7 a.m. EST

Idaho

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	15.61	84.39	66.47	0.95	0.00	0.00
Last Week (09/25/2012 map)	15.61	84.39	66.47	1.27	0.00	0.00
3 Months Ago (07/03/2012 map)	52.57	47.43	1.05	0.18	0.00	0.00
Start of Calendar Year (12/27/2011 map)	48.90	51.10	0.00	0.00	0.00	0.00
Start of Water Year (09/25/2012 map)	15.61	84.39	66.47	1.27	0.00	0.00
One Year Ago (09/27/2011 map)	86.56	13.44	0.00	0.00	0.00	0.00



Intensity:

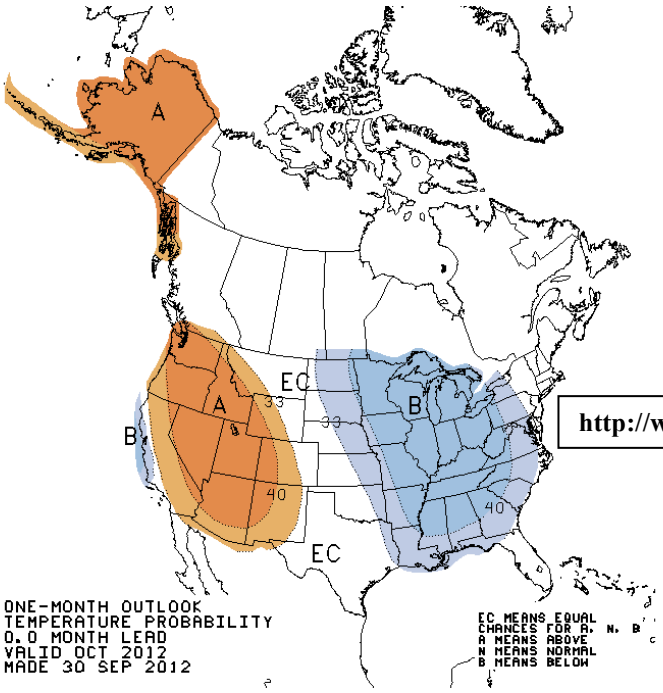
- *D0 Abnormally Dry*
- *D1 Drought - Moderate*
- *D2 Drought - Severe*
- *D3 Drought - Extreme*
- *D4 Drought - Exceptional*

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

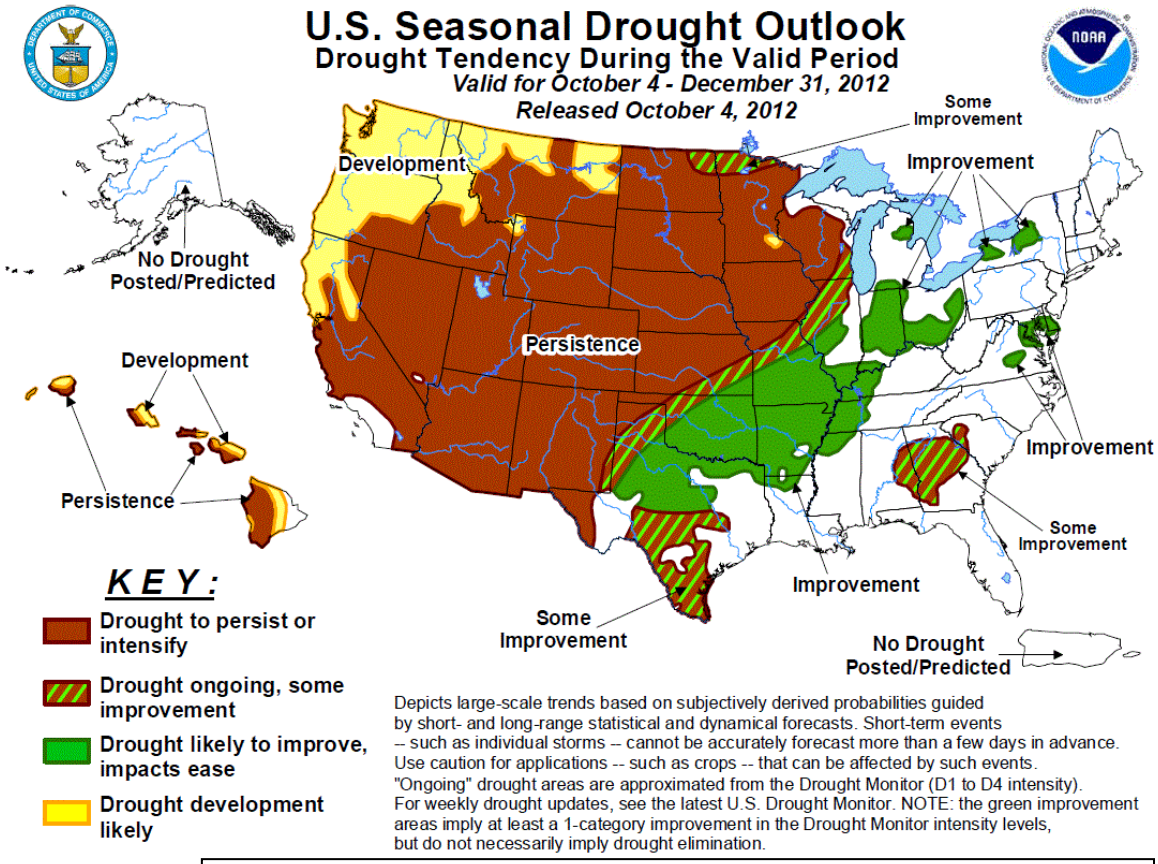
http://droughtmonitor.unl.edu

Released Thursday, October 4, 2012
Anthony Artusa, NOAA/NWS/NCEP/CPC

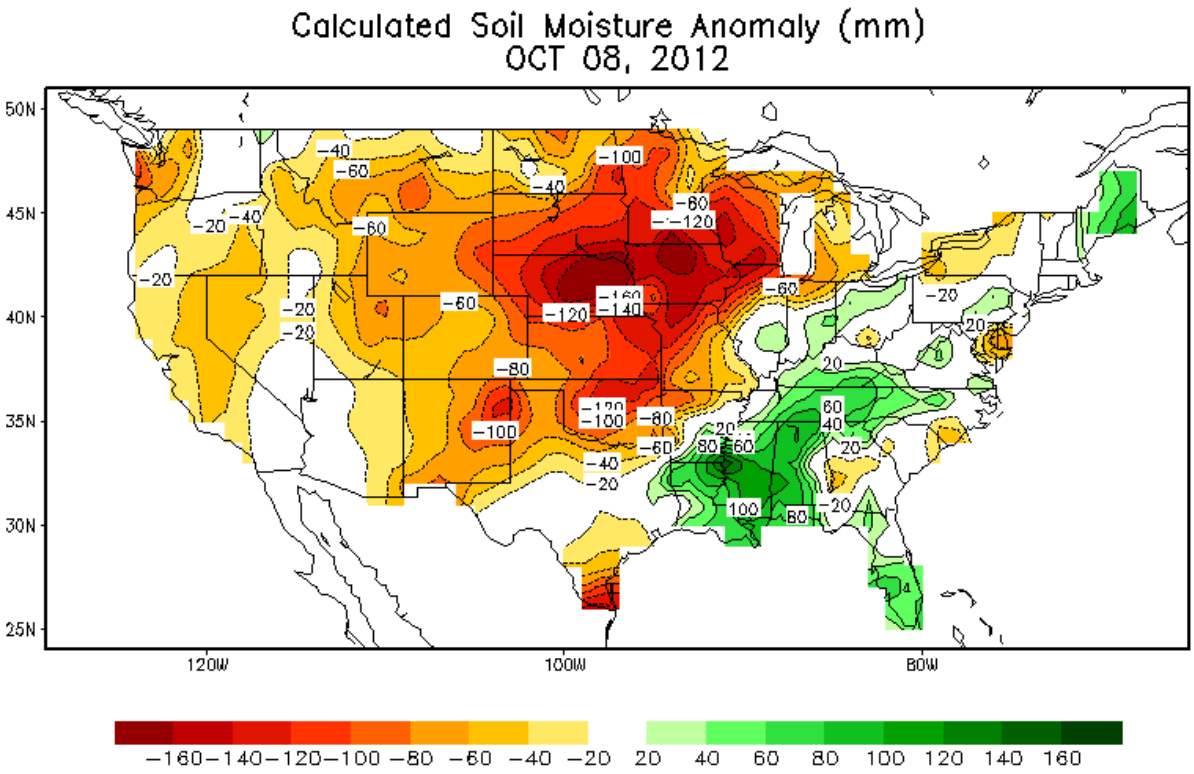
<u>No additional Idaho Department of Water Resources Drought Emergency Declarations for Counties since last month's E-5 report**</u>**



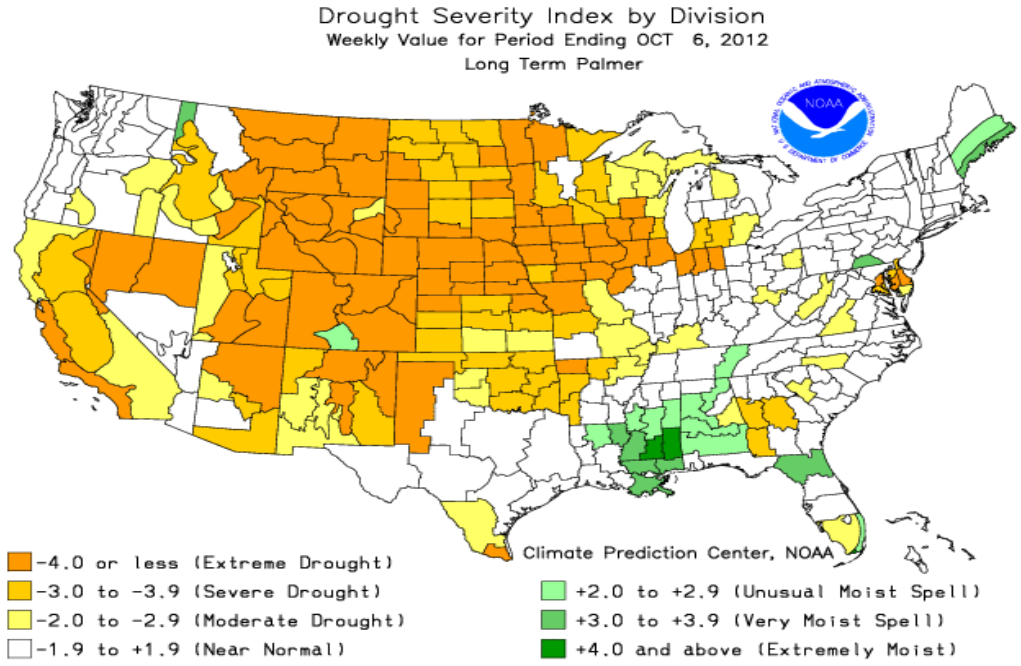
http://www.cpc.ncep.noaa.gov/products/predictions/30day/off15_temp.gif



http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.gif

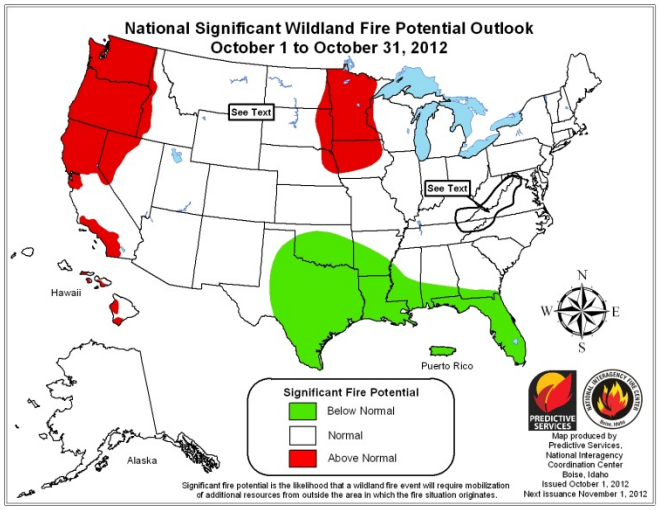


http://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml#

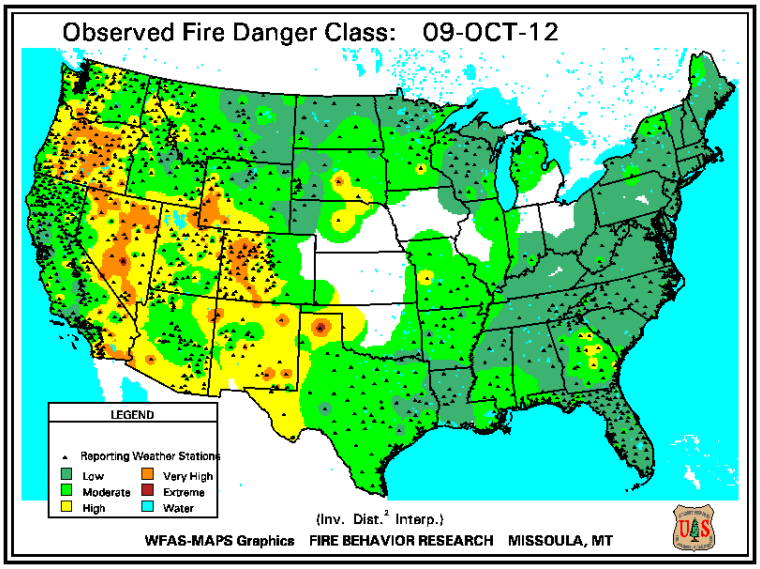


http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/regional_monitoring/palmer.gif

Fire Information:



http://www.predictiveservices.nifc.gov/outlooks/monthly_outlook.jpg



http://www.wfas.net/images/firedanger/fd_class.png

Satellite Smoke imagery for 10/6/2012 (afternoon) from Aqua MODIS, Source: Idaho wildfire update report 10/9/2012

Current Fires in HSA as of 10/9/12:

Mustang Complex (major fire), Salmon-Challis NF (6 fires; increase of 2 since last report). Salmon-Challis NF. Three miles northwest of North Fork, ID. Timber, brush, and grass; creeping and smoldering. Currently at 340,659 acres and 59% contained (based on Inciweb).

Rocky Canyon, Fort Hall Agency, BIA. Sixteen miles northeast of Inkom, ID. Brush; creeping and smoldering. 871 acres and 60% contained. Estimated to be contained today.

Information by the numbers:

Year-to-Date fire totals in the Eastern Great Basin is 2,355 total fires with 2,032,091 acres burned.

The total (nationwide) number of fires year-to-date is 49,682 and the number of acres burned nationwide is 8,862,671.

The nationwide ten year average number of fires is 63,933 and the ten year nationwide average number of acres burned is 6,699,314. So, this year we have had less number of fires, but more of an impact spacially for the ten year average.

Source: http://www.nifc.gov/nicc/sitreprt.pdf

cc:

Mike Schaffner, Western Region HCSD
Harold Opitz, Hydrologist-in-Charge, Northwest River Forecast Center
Michelle Stokes, Hydrologist-in-Charge, Colorado Basin River Forecast Center
Hydrometeorological Information Center
Rick Dittmann, Meteorologist-in-Charge, Pocatello, Idaho
Troy Lindquist, Senior Service Hydrologist, Boise, Idaho
Brad Gillies, Hydrologist, Northwest River Forecast Center
Taylor Dixon, Hydrologist, Northwest River Forecast Center
Brent Bernard, Hydrologist, Colorado Basin River Forecast Center